

# 4367

See also 4368 & 4366

Diag. Cht. No. 5101-2 & 5102-2

4367

Form 504 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY
State: <u>California</u>
11-5013
DESCRIPTIVE REPORT.
Hydrog. Sheet No. <u>4367</u>
LOCALITY:
<u>Gulf of Santa Catalina</u>
<u>La Jolla to Santa Margarita R.</u>
1924
CHIEF OF PARTY:
<u>R.F. Luce</u>

Field Records

October 24, 1924.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
10 volumes of sounding records for

HYDROGRAPHIC SHEET 4367

Locality: Santa Barbara Channel, Calif.

Chief of Party: J. F. Luce in 1924.

Plane of reference is mean lower low water reading  
3.6 ft. on ~~benchmark~~ at  
tide gauge at Quarantine Wharf, San Diego.

For reduction of soundings, condition of records satisfactory  
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks



Chief, Division of Tides and Currents.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEETS NOS. 4367, and

      , SANTA BARBARA CHANNEL, LA JOLLA TO SANTA MARGARITA RIVER, CALIFORNIA.

Although no new topographic survey was made this season in connection with the hydrographic survey, the location of new hydrographic signals on the shore line and the appearance of the shore at numerous points indicates that no appreciable changes have taken place in the shore line since the last topographic survey.

No new towns or villages have been established but there has been a growth in population and in the number of buildings in each town, especially in La Jolla and Oceanside.

At night the street lights of both the latter towns are conspicuous as are also the regularly spaced street lights of a real estate development at Carlsbad.

There are no piers along the shores for ships. Landings in surf boats are difficult to make except in very favorable weather. A very good private pier at the Scripps Institute, two miles north of La Jolla, was used on several occasions to land launch parties from the ship, when there was only a moderate swell running.

No outlying dangers were found in the area covered by the sheets. The contours of the bottom run nearly parallel to the general trend of the coast line, the fifty fathom line being about two miles off shore at the southern end and four miles off at the northern end, the bottom having a gradual slope in to the beach but dropping off rapidly seaward reaching the three-hundred fathom curve seven miles off shore.

The currents as a rule are weak, and set generally in a direction with the prevailing winds. The winds in shore are generally more moderate than

those off shore in the vicinity of San Clemente Island.

Objects which will be useful in future surveys are the mountain peaks, generally free from clouds; the black water tank ("Large") about eight miles north of La Jolla; the southern corner ("Kelley") of a white farm house in a grove of trees on the top of the first ridge back of Carlsbad; the three tall white oil tanks ("Trip") in the southern part of Oceanside not far from the shore line; an oil derrick in the northern part of Oceanside, not located during this season; and an unusually large isolated barn, ("Barn") in a field about four miles northwest of Oceanside. Other prominent objects are available but can not be identified from a description only.

Temporary anchorage one mile off shore in good holding ground of mud and sand was used by the ship in the vicinity of Oceanside. The usual depth was 20 fathoms. No protection was offered from the prevailing winds in this location.

The soundings taken in water of less than one hundred fathoms were all obtained from up and down casts with wire using an electrically driven sounding machine. Outside of the 100 fathom curve soundings were taken with the sonic depth finding apparatus, a check wire sounding being made every six miles along the sounding lines. These checks generally agreed within 1% of the depth.

These sonic soundings were taken about every three minutes with the ship running about <sup>eight</sup>~~six~~ knots per hour. Positions every six minutes were obtained from sextant angle fixes on shore objects.

*St. Luce*

*Map of City of Oceanside Cal., filed as  
blue print file #19367*

STATISTICS SHEET NO. *San Jolla to Oceanside, Calif.*

Date 1924.	Letter.	Vol. <sup>3</sup>	Positions.	Soundings.	Miles Statute.	Vessel.
Feb. 6.	A	1	107	82 wire 38 sonic.	31.6	GUIDE.
" 7	B	1	138	138	29.4	"
" 8	C	1	25	25	5.1	"
" 14	D	1	59	59	9.5	"
" 14	D	2	58	40 28	18.5	"
" 15	E	2	72	50 35	21.3	"
" 19	F	2	129	129	21.0	"
" 20	G	2	38	38	5.5	"
" 20	G	4	71	48 34	20.7	"
" 21	H	3	64	64	10.5	"
" 26	J	3	30	30	5.3	"
" 27	K	3	137	123 23	29.6	"
" 28	L	4	8	2 15	4.0	"
Mar. 5	M	4	7	1 9	3.5	"
" 13	N	4	63	36 38	21.9	"
" 14	P	4	8	2 11	4.0	"
" 18	Q	4	88	40 73	35.4	"
" 19	R	4	91	91	15.4	"
" 20	S	5	72	72	12.0	"
Apr. 3	T	5	32	3 43	16.8	"
" 4	U	5	10	2 17	6.6	"
" 8	V	5	27	9 28	13.6	"
" 22	W	5	80	5 100	40.0	"
" 23	X	5	33	2 43	18.5	"
TOTALS.		5	1447	1091 535	399.7	

Soundings in Fathoms.

Plane of Reference - Mean Lower Low Water.

Automatic tide gauge at Quarantine wharf, San Diego, Calif.

Plane of Reference, reading on gauge,.....3.6 ft.

Lowest Tide observed, reading on gauge,.....

Highest Tide observed, reading on gauge,.....

## HYDROGRAPHIC POSITIONS.

SANTA BARBARA CHANNEL, California.

1924.

Object and Desc.	Latitude.	D.M.	Longitude.	D.P.	Height.	
	°	'	°	'	Meters.	Feet.
"Scripps's" Hydrophone,	32	52	270	117 15	940	
Pine, clump of trees on mound,	32	55	552	117 15	351	30
House, near Valletta Pt.	33	05	1100	117 18	1235	
Yell, yellow filling sta. on bluff,	33	08	1633	117 20	1051	20
Trip, middle of three white oil tanks	33	11	612	117 22	841	25
"Oceanside" Hydrophone,	33	11	50	117 24	60	
Small, water tank on tower,	33	12	1311	117 23	752	25
Barn, isolated, large, dark,	33	15	211	117 25	321	25

For Sheet No.

Dec 5, 1924

Report on Hydrographic sheet # 367

The cuts to the hydrographic signals were not listed in the records, that made it necessary to look at every page to find them.

There are a few cuts shown on the boat sheet that could not be found in the records.

The smooth sheet was very clean and well protracted.

The drafting conforms to the general instructions for field work.

The changes in course were given in the records.

The symbol gr was used for green in the records.

All sonic soundings are underlined with red ink.

F. W. Clouston

California.  
 Santa Barbara Channel.  
 San Diego Northward.

## Hydrographic Positions

N.A.  
 Datum.

Object and Description	Latitude. D.M.			Longitude		D.P.		Height.	
	°	'	Meters	°	'	Meters	Feet		
"Scripp's" Hydrophone	32	52	270	117	15	940			
Pine, clump of trees on mound.	32	55	552	117	15	351		30	
House, near Vailetta Point,	33	05	1100	117	18	1235			
Yell, yellow filling station, on bluff.	33	08	1633	117	20	1051		20	
Trip, middle one of three white oil tanks	33	11	612	117	22	841		25	
Small	33	12	1311	117	23	752			
Barn, isolated, enormous, dark.	33	15	211	117	25	321		25	
"Oceanside", Hydrophone,	33	11	50	117	24	60			

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

September 26, 1925.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4367

Gulf of Santa Catalina, California.

Surveyed in 1924

Instructions verbally by Chief, H. & T. Division.

Chief of Party, R. F. Luce.

Surveyed by party of Steamer Guide.

Protracted and soundings plotted by G. W. Tatchell.

Verified and inked by H. R. Edmonston.

1. The records conform to the requirements of the General Instructions, except in the following respects:

The bottom abbreviation gr was frequently used instead of gn or gy.

Cuts to hydrographic signals were not listed on the index pages of the sounding records. Some cuts were shown on the boat sheet but not included in the records.

2. The plan and character of development conform to the requirements of the General Instructions.
3. The information is sufficient for drawing the depth curves.
4. The sounding line crossings are adequate.
5. Practically all soundings in depths greater than 100 fathoms were taken by the sonic method with wire soundings every 6 minutes. About one-half of the comparative soundings showed from 5 to 12% differences between the wire and sonic readings.

Although the sonic method has failed, in the moderate depths included in this survey, to give results that attain the standard of accuracy that is ordinarily expected, the errors are not sufficient to warrant rejecting the work.

6. The junctions with the adjoining contemporary work and also with the old surveys are satisfactory.
7. No further surveying is required within the limits of the sheet.
8. The character and scope of the surveying and field drafting are excellent.
9. Reviewed by E. P. Ellis, September, 1925.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## HYDROGRAPHIC TITLE SHEET 3

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4367

State C.A.L.I.F.O.R.N.I.A.

General locality Gulf of Santa Catalina  
~~SANTA BARBARA CHANNEL~~

Locality Santa Margarita R.  
La Jolla to Secaucus

Chief of party Lt. Commander R.F. Luce,

Surveyed by Coast Survey Ship GUIDE, R.F. Luce, Comdg.

Date of survey February to April, 1924.

Scale 1 : 40000.

Soundings in Fathoms.

Plane of reference Mean Lower Low Water.

Protracted by G.W.T. <sup>Thatchell</sup> Soundings in pencil by G.W.T.

Inked by H.R. Edmonston Verified by H.F.E.  
G.W.T. J.H.S.

Records accompanying sheet (check those forwarded):

Des. report, \_\_\_\_\_ Tide books, \_\_\_\_\_ Marigrams, 1 Boat sheets,

5 Sounding books, \_\_\_\_\_ Wire-drag books, \_\_\_\_\_ Photographs.

Data from other sources affecting sheet Triangulation points

taken from Supt's Report for 1904, and from computations of

triangulation made during the season.

Remarks:

Descriptive report covers this sheet and ~~and~~ the adjoining sheet to the north.

*also received 4 sonic sounding records Oct. 1, 1924*

Applied to chart 3360. December 29, 1943. F.A.M.